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BEFORE THE ARIZONA POWER PLANT AND TRANSMISSION LINE SITING COMMITTEE

AZ CORP COMMISSION  
DOCUMENT CONTROL

Docket No:  
L-00000D-03-0122

Case No: 122

Arizona Corporation Commission  
**DOCKETED**

SEP 15 2003

DOCKETED BY

IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE COMPANY IN CONFORMANCE WITH THE REQUIREMENTS OF ARIZONA REVISED STATUTES SECTION 40-360, et seq., FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AUTHORIZING THE WEST VALLEY-SOUTH 230 KV TRANSMISSION LINE PROJECT, INCLUDING THE CONSTRUCTION OF APPROXIMATELY 18 MILES OF 230 KV TRANSMISSION LINES AND THREE 230 KV SUBSTATIONS IN MARICOPA COUNTY, ARIZONA, ORIGINATING AT THE PROPOSED TS2 SUBSTATION IN SECTION 19 TOWNSHIP 1 NORTH, RANGE 2, WEST, G&SRB&M AND CONTINUING TO THE PROPOSED TS3 SUBSTATION IN SECTION 22, TOWNSHIP 2, NORTH, RANGE 3 WEST, G&SRB&M AND TERMINATING AT THE EXISTING 230 KV TRANSMISSION LINE THAT WILL INTERCONNECT WITH THE PROPOSED TS4 SUBSTATION IN SECTION 28, TOWNSHIP 3 NORTH, RANGE 2 WEST, G&SRB&M

**PRE-HEARING MEMORANDUM**

Pursuant to the Arizona Power Plant and Transmission Line Siting Committee (the "Committee") August 27, 2003 Procedural Order, Applicant Arizona Public Service Company files the following materials:

I. Witnesses and Exhibits

In addition to the witnesses and exhibits provided in the Applicant's August 4, 2003 Supplemental Packet ("Supplemental Packet No. 1"), Applicant is now providing

1 an additional supplemental packet ("Supplement Packet No. 2") containing the following  
2 additional exhibits:

- 3 1. A map showing the 6,000 foot corridor for the Proposed and Alternative  
4 system options;
- 5 2. Photographic simulations showing the view of the proposed transmission  
6 line and TS2 substation from the White Tanks Mountain Regional Park;
- 7 3. The power point presentation of Marty Eroh on EMF.  
8

9  
10 Applicants only additional witness will be Mr. Eroh, although the Applicant still  
11 needs to complete the direct testimony of Mr. Simpson.

12 II. The Beardsley Canal

13 Maricopa Water District ("MWD") testified that it opposes siting a transmission  
14 line on its property along the Beardsley Canal. Because MWD is a governmental entity,  
15 legal questions are raised about Applicant's ability to condemn MWD property. In that  
16 regard, Applicant asks the Committee to take administrative notice of Arizona Attorney  
17 General Opinion No. I86-080. Because other environmentally compatible routes are  
18 available that do not require time consuming litigation to determine Applicant's right to  
19 possession, the Applicant did not propose a route along the Beardsley Canal. Applicant  
20 urges that the Committee select from the options presented by the Applicant, both of  
21 which can be built in a timely fashion without the delay caused by litigating novel  
22 questions of Arizona law.  
23  
24  
25  
26



1     III.     Form of CEC Order

2             Applicant submitted a form of order in Supplemental Packet No. 1. After  
3     conferring with other intervenors in this case, Applicant maintains that its proposed Order  
4     should be adopted. None of the intervenors propose any modifications to the Applicant's  
5     Certificate of Environmental Compatibility ("CEC") conditions, but certain intervenors  
6     proposed modifications to the route. Both the south of Olive Avenue property owners and  
7     the Cortessa developers propose terminating the route at Olive Avenue and Loop 303 or  
8     Olive Avenue and Cotton Lane and propose moving the TS2 substation to that termination  
9     point. The south of Olive Avenue property owners will, however, accept the Proposed  
10    system option north of Olive Avenue if the Committee does not terminate the transmission  
11    line at Olive Avenue and Loop 303 or Cotton Lane.

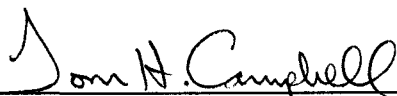
12            Terminating the line as proposed by these two intervenors is not in the public  
13    interest. As described by Applicant witness, Mr. Robert Smith, the transmission line is  
14    sited to the west to serve load in that area and so that it may eventually interconnect to  
15    other transmission line and substation projects that will be west of the Loop 303. These  
16    future projects are described in the Ten Year Plan that has been filed with the Arizona  
17    Corporation Commission. The Applicant proposes that the transmission line be on the  
18    north side of Olive Avenue, thereby avoiding the existing residents on the south side of  
19    Olive Avenue. Future developments on the north of Olive Avenue, such as Cortessa, can  
20    mitigate the impact of the transmission line because they are in the early planning and  
21    design stages. If the Committee terminates the project at Olive Avenue and Loop 303, a

1 future line siting proceeding will be needed to site a transmission line to the west. It will  
2 be more difficult in a future case because additional developments will have been built and  
3 planned and property owners and developers will lose the capacity to plan for the  
4 transmission line project route. There likely will be developments along Olive Avenue,  
5 along Peoria Avenue and along Cactus Roads as evidenced by the General Plans for the  
6 areas. Applicant urges the Committee not to postpone a decision in this case because it  
7 will only be more difficult in the future due to siting constraints.  
8

9  
10 Maricopa County Parks and Recreation Department concerns about the  
11 transmission line do not compel rejection of the Olive Avenue route. The TS2 substation  
12 was moved north of Olive Avenue to address their concerns. The transmission line itself  
13 turns north of Olive Avenue a mile and one-half from the Park's entrance. As the  
14 photographic simulations that Mr. Simpson will present will demonstrate, the proposed  
15 transmission line and substation will be only slightly visible from the Park and not  
16 noticeable to most Park visitors. Another mitigating factor is that ultimately there will be  
17 homes between the Park and the transmission line and substation.  
18

19  
20 DATED this 15<sup>th</sup> day of September, 2003.

21 LEWIS AND ROCA LLP

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7 ORIGINAL and twenty-five (25) copies  
8 of the foregoing filed this 15<sup>th</sup> day of  
9 September, 2003, with:

10 The Arizona Corporation Commission  
11 Utilities Division – Docket Control  
12 1200 W. Washington Street  
13 Phoenix, Arizona 85007

14 COPY of the foregoing hand-delivered  
15 this 15<sup>th</sup> day of September, 2003, to:

16 David M. Ronald  
17 Legal Division  
18 Arizona Corporation Commission  
19 1200 W. Washington Street  
20 Phoenix, Arizona 85007

21 COPY of the foregoing mailed this  
22 15<sup>th</sup> day of September, 2003, to:

23 Laurie Woodall, Chairman  
24 Arizona Power Plant and Transmission  
25 Line Siting Committee  
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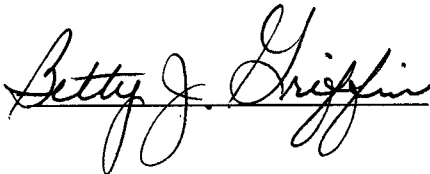
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# WEST VALLEY-SOUTH

## Power Line and Substation Project

WEST VALLEY-SOUTH



### *Application for a Certificate of Environmental Compatibility*

**SUPPLEMENTAL PACKET #2**

Submitted by



September 2003



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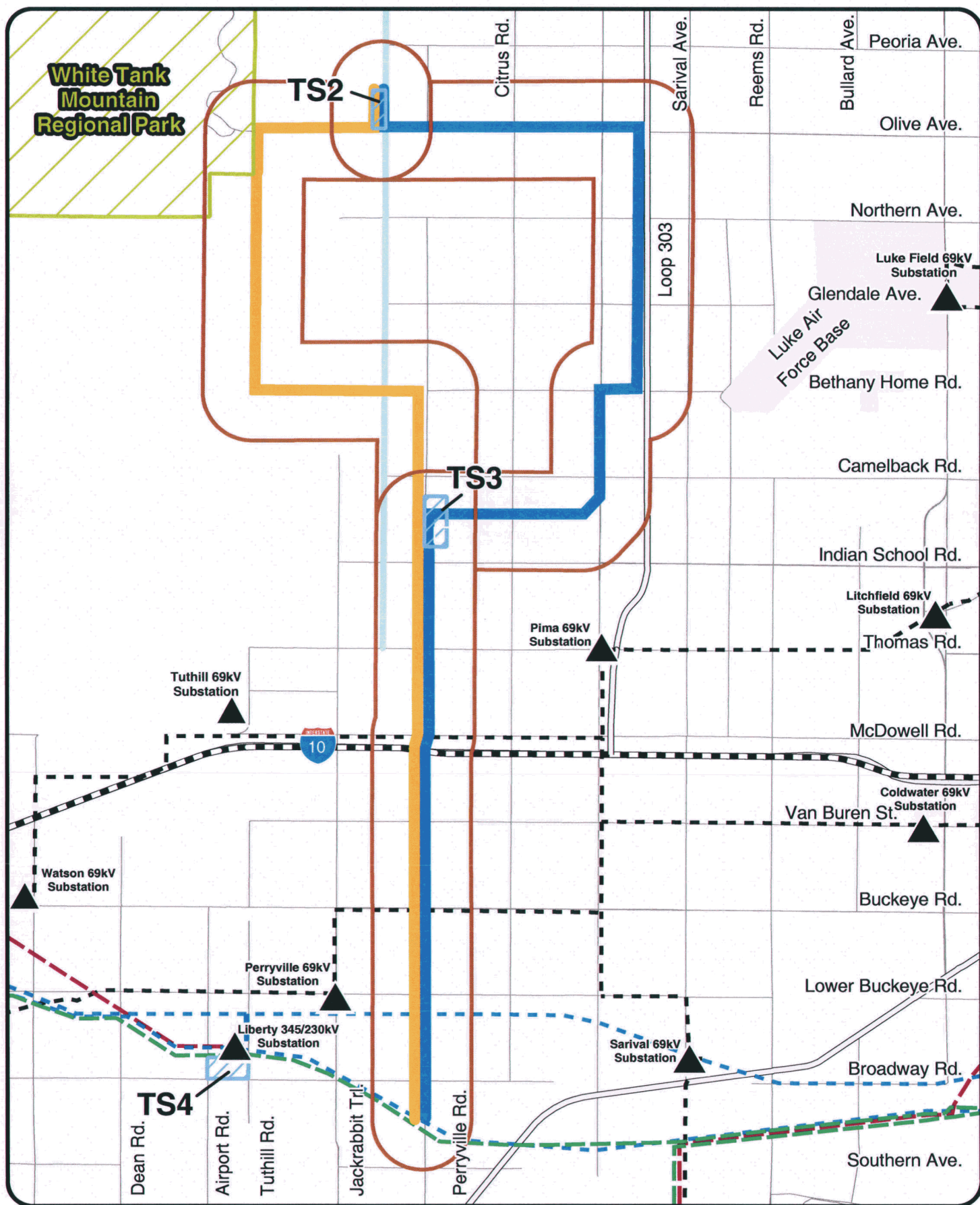
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## SECTION I

# Map of the Proposed and Alternative System Options with 6,000-foot Corridor



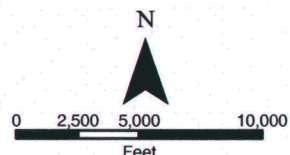


**Proposed and Alternative System Options With 6,000-foot Corridor**

WEST VALLEY-SOUTH



- Proposed Substation
- Proposed System Option
- Alternative System Option
- 6,000-foot Corridor





## SECTION II

# Visual Simulations from within the White Tank Mountain Regional Park



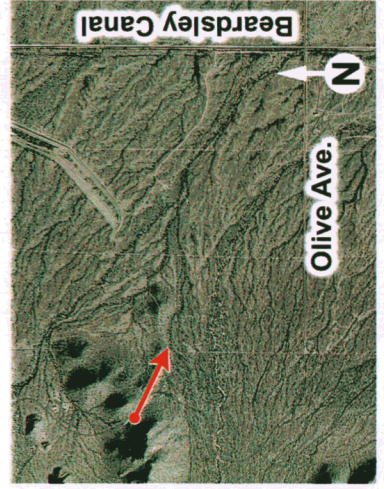


Existing Conditions





Simulated Future Conditions (without residential development adjacent to park boundary)



Location Map (not to scale)

## View from White Tank Mountains Regional Park



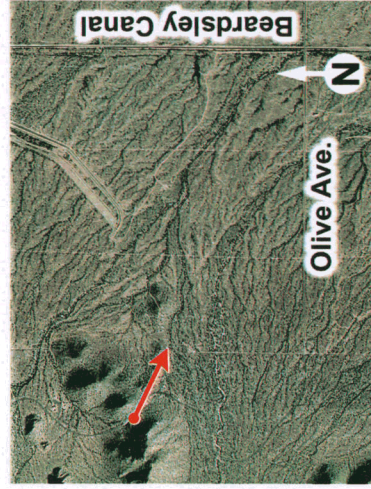


Simulated Future Conditions (with residential development adjacent to park boundary)





Simulated Future Conditions (150% zoom with residential development adjacent to park boundary)



Location Map (not to scale)

## View from White Tank Mountains Regional Park



## SECTION III

### Testimony Presentation Slides



# 60 Hertz Electric and Magnetic Fields Brief Update

*Marty Eroh*

Arizona Public Service  
Senior Environmental  
Scientist/Industrial Health Consultant





# Witness Background

- Educational background
  - BS Toxicology, Philadelphia College of Pharmacy and Science
  - MS Industrial Hygienist / Toxicology, University of Arizona
- Professional background
  - 17 years of experience with APS' Corporate Environmental, Health and Safety Department
  - 15 years of extensive involvement with EMF
  - Certified Industrial Hygienist - CIH





# Electromagnetic Fields

- Electromagnetic fields found wherever there is electricity
  - Power lines, building wiring, appliances
- E Fields - function of voltage (kV/m)
- Magnetic fields - function of current (mG)
- Strength of both fields decrease rapidly with distance from the source





# Overall Status of Health Effects Research

- Research dates back to the 1970s
- No known health effect at commonly encountered field strengths, similar to those found directly under high voltage power lines
- There are no applicable exposure limits at a federal or state level
- General public exposure guidelines:
  - ICNIRP = 833 mG
  - IEEE = 9,000 mG





# California Report

- Primarily a literature review
- Provides opinions of three scientists - all with epidemiological backgrounds
- Does not conclude that fields cause cancer





# APS' Response

- Understand that this is a concern to our customers and employees
- Share information
- Take measurements upon request
- Support research
- Minimize fields from new lines by phase arrangement

